

# SONDE

Sondes (when fitted to a flexible rod) can be used in tracing the paths of pipes, ducts, sewers and drains, and in the precise location of blockages or collapses.

## Standard Sonde

The standard sonde combines compact size and strong signal. Supplied with M10 male threaded end cap and available in 512 Hz, 8 kHz or 33 kHz options. The 512 Hz version is particularly useful for uses in cast iron pipes.



<b>Size</b>	Length 105mm (4.1"), Diameter 39mm (1.5")	<b>Location Depth</b>	5m (16")
<b>Battery</b>	1x AA providing 8 hours continuous use	<b>Signal</b>	512 Hz, 8 kHz or 33 kHz continuous
<b>Pressure</b>	2 bar – 20m (65') of water		

**Notes: Sondes are intended to be used for location purposes only and should be used in this way. Failure to do so may result in damage to the sonde and may invalidate the warranty.**

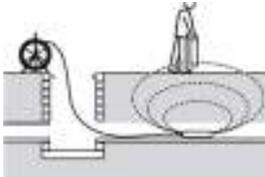
**Sondes are not classed as 'intrinsically safe' for use in applications where hazardous gases are present.**

**The majority of sondes transmit on 33 kHz and as such can be used with a wide range of locators. For 512Hz and 8 kHz sondes please check with the specific locator user guide for compatibility.**

## LOCATING A SONDE

A new battery or a fresh recharged battery should be used at the beginning of each day and preferably at the start of a job. Check that the sonde and locator are operating at the same frequency and working correctly.

A quick test for both sonde and locator is to position the sonde at a distance equal to its rated depth range from the locator. Point the locator at the sonde with its blade in-line with the sonde, and check that the bar graph on the locator displays more than 50% with the sensitivity of the locator set to maximum.

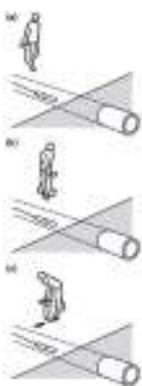
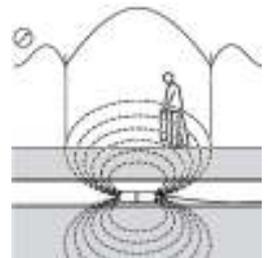


**Note: The blade of the locator must be in line with the sonde, the opposite to cable locating.**

With the sonde attached to the flexible rod, insert it into the drain or duct to be located, keeping the sonde just in view. Hold the locator vertically and directly over the sonde, with the blade in-line with the sonde.

Adjust the sensitivity of the locator to give a bar graph display reading between 60% and 80%.

A sonde radiates a peak field from the centre of its axis with ghost signals at each side of the peak. Move the locator a little way to one side and then along the axis of the sonde forwards and backwards to detect the ghost signals.



It is a good idea to locate the ghosts as finding them positively confirms the position of the main peak. To lose the ghosts subsequently, reduce the sensitivity of the locator a little to leave only the main peak detectable.

With the locator sensitivity set as desired, propel the sonde along three to four paces and stop. Place the locator over the estimated position of the sonde and:

(A) Move the locator backwards and forwards with the blade in line with the sonde and stop when the locator display indicates a clear peak response.

(B) Rotate the locator as if the blade were a pivot, stop when the display indicates a clear peak response.

(C) Move the locator from side to side until the display indicates a clear peak response,

Repeat (A), (B) and (C) in smaller increments with the locator blade resting on or near the ground. The locator should now be directly above the sonde with the blade in line with the sonde. Now, mark the position.

Propel the sonde a further three to four paces along the drain or duct and pinpoint and mark. Repeat this procedure along the route at similar intervals. It should only be necessary to change the locator sensitivity while tracing the sonde if there is change in the depth of the drain or duct, or the distance between locator and sonde.

## MEASURING DEPT TO A SONDE

Pinpoint the sonde as previously described and rest the locator on the ground and in-line with the sonde. Adjust the sensitivity to provide a bar graph deflection between 60% and 80%. Refer to the specific locator user guide on how to obtain a sonde depth measurement.

If the locator does not provide depth measurements or the sonde is too deep for the locator to display or calculate a depth measurement but can still be located, the following method may be used to calculate the sonde's depth:

Pinpoint the sonde. Move the locator in front of the sonde and while in line with the sonde, increase the sensitivity of the locator slightly to find the ghost signal. Between the main peak and the ghost there is a Null or minimum between the ghost and main peak. See points 'A' and 'B' on the diagram. The higher the sensitivity of the locator, the sharper the nulls appear.

Measure the distance between point 'A' and 'B' and multiply by 0.7 to give an approximate depth measurement.

